SEQUENCE LISTING

<110> BULLEID, NEIL J

<120> PROCOLLAGEN ASSEMBLY

<130> 39-189

<140> PCT/GB98/00468

MAY 7 / 2000

<141> 1998-03-02

.150. 9704305.3

<151> 1997-03-01

<160> 18

<170> PatentIn Ver. 2.0

<010> 1

<211> 23

<212> PET

<013> Homo sapiens

<400> 1

Gly Gly Gln Gly Ser Asp Pro Ala Asp Val Ala Ile Gln Leu Thr Phe 1 5 10 15

Leu Arg Leu Met Ser Thr Glu 20

<2110 - 21

<.311> 23

<:!12% PET</pre>

4.213 → Homb sapiens

4400 - 2

Asn Val Glu Gly Val Thr Ser Lys Glu Met Ala Thr Gln Leu Ala Phe 1 5 10 15

Met Arg Leu Leu Ala Asn Tyr 20

<210 - 3

<211 → 23

```
S2125 PET
<213> Homo sapiens
<400> 3
Gly Asp Asp Asn Leu Ala Pro Asn Thr Ala Asn Val Gln Met Thr Phe
Leu Arg Leu Leu Ser Thr Glu
            20
<22.0> 4
<211> 23
<2112> PRT
<::1b> Homo sapiens
<4000 4
Gly Asr. Pro Glu Leu Pro Glu Asp Val Leu Asp Val Gln Leu Ala Phe
Leu Arg Leu Leu Ser Ser Arg
            20
<3100 5
111522
<212> PET
<313> Homo sapiens
<400> 5
Mal Asp Ala Glu Gly Asn Pro Val Gly Val Val Gln Met Thr Phe Leu
Arg Let Leu Ser Ala Ser
             2.0
43102 6
<201 - 22
<213 + PRT
<213 - Homo sapiens
-:400 → €
Gly Asp His Glm Ser Pro Ash Thr Ala Leu Thr 41h Met Thi Phe Let
Arg Leu Leu Ser Lys Glu
```

Cirthur.

```
<210> 7
<.111> 22
<212> PRT
<.113> Homo sapiens
<400> 7
Leu Asp Val Glu Gly Asn Ser Ile Asn Met Val Gln Met Thr Phe Leu
                                      10
Lys Leu Leu Thr Ala Ser
             20
<210> 8
<211> 22
<312> PET
<2113> Homo sapiens
< 100> 8
Val Asp Ser Glu Gly Ser Pro Val Gly Val Val Gln Leu Thr Phe Leu
Arg Leu Leu Ser Val Ser
             20
<...11(1> 9
<.111> 20
<...12> DNA
<2213> Artificial Sequence
<...2(it>
<223> Description of Artificial Sequence: RECOMBINANT
     PRIMER
<400 9
agatygtege actggacate
```

2.0

<210 > 10

<211> 32

<212> DNA	
<213> Artificial Sequence	
<220>	
<pre><223> Description of Artificial Sequence:RECOMBINANT PRIMER</pre>	
<400> 10	
togdagggat cogtoggtoa ottgoactgg tt	32
<210> 11	
<211> 21	
<212> DNA	
<pre></pre> <pre>Artificial Sequence</pre>	
<320>	
<223> Description of Artificial Sequence:RECOMBINANT PRIMER	
<400> 11	
aatggagete etggacecat g	21
<2.10> 11	
<0.11> 30	
<212> DMA	
<pre></pre> <pre>Artificial Sequence</pre>	
<220×	
<pre> <pre></pre></pre>	
<400> 11.	
etgetageta ecaaatggaa ggatteaget tt	32
<210> 13	
<211 → 21	
KN12→ PHT	
<213> Homo sapiens	
<220> <223 Description of Artificial Sequence: Unknown	

times

```
<220>
<221> Unsure
<222> (13)..(18)
<2005> Xaa is any naturally occurring amino acid, or no amino acid
present
<:400> 13
Gly Ash Pro Glu Leu Pro Glu Asp Val Leu Asp Val Maa Maa Maa Maa
Kaa Kaa Ser Ser Arg
            20
<210> 14
<011> 22
<.112> PET
<d::Ib> Homo sapiens
<2220>
<223> Description of Artificial Sequence:Unknown
<220>
<221> Unsure
<222> (13)..(19)
<223> Xaa is any naturally occurring amino acid, or no amino acid
present
<400> 14
G.7 Asn Pro Glu Leu Pro Glu Asp Val Leu Asp Val Xaa Xaa Xaa Xaa
Kua Maa Maa Ser Ser Arg
             20
<.:10> 15
<.111> 9
<!!!> PET
<215> Homo sapiens
<400> 15
Gin Leu Ala Phe Leu Arg Leu Leu Leu
<210> 16
<211> 250
<212> PRT
```

<213> Homo sapiens

<400> 16

Tyr Tyr Arg Ala Asp Asp Ala Asn Val Val Arg Asp Arg Asp Leu Glu 1 5 10

Val Asp Thr Thr Leu Lys Ser Leu Ser Gln Gln Ile Glu Asn Ile Arg 20 25 30

Ser Pro Glu Gly Ser Arg Lys Asn Pro Ala Arg Thr Cys Arg Asp Leu 35 40 45

Lys Met Cys His Ser Asp Trp Lys Ser Gly Glu Tyr Trp Ile Asp Pro 50 55

Asn Glr Gly Cys Asn Leu Asp Ala Ile Lys Val Phe Cys Asn Met Glu
65 70 75 80

Thr Gly Glu Thr Cys Val Tyr Pro Thr Gln Pro Ser Val Ala Gln Lys 85 90 95

Asn Trp Tyr Ile Ser Lys Asn Pro Lys Asp Lys Arg His Val Trp Phe 100 105 110

Gly Glu Ser Met Thr Asp Gly Phe Gln Phe Glu Tyr Gly Gly Glr Gly 115 125

Ser Asp Pro Ala Asp Val Ala Ile Gln Leu Thr Phe Leu Arg Leu Met 130 135 140

Ser Thr Glu Ala Ser Glr. Asn Ile Thr Tyr His Cys Lys Asn Ser Val 145 150 155 160

Ala Tyr Met Asp Gln Gln Thr Gly Asn Leu Lys Lys Ala Leu Leu Leu 165 170 175

Lys Gly Ser Asn Glu Ile Glu Ile Arg Ala Glu Gly Asn Ser Arg Phe 180 185 90

Thr Tyr Ser Val Thr Val Asp Gly Cys Thr Ser His Thr Gly Ala Trp 195 200 205

Gly Lys Thr Val Ile Glu Tyr Lys Thr Thr Lys Thr Ser Arg Leu Pro $210 \,$ $\,$ $220 \,$

Ile Ile Asp Val Ala Pro Leu Asp Val Gly Ala Pro Asp Gln Glu Phe 225 230 235 236

Gly Phe Asp Val Gly Pro Val Cys Phe Leu 245 250

<210> 17

<211> 251

<212> PRT

<213> Homo sapiens

<400> 17

Phe Tyr Arg Ala Asp Gln Pro Arg Ser Ala Pro Ser Leu Arg Pro Lys Asp Tyr Glu Val Asp Ala Thr Leu Lys Ser Leu Asn Asn Gln Ile Glu Thr Leu Leu Thr Pro Glu Gly Ser Arg Lys Asn Pro Ala Arg Thr Cys Arg Asp Leu Arg Leu Ser His Pro Glu Trp Ser Ser Gly Tyr Tyr Trp lle Asp Pro Asn Glr. Gly Cys Thr Met Glu Ala Ile Lys Val Tyr Cys Asp Phe Pro Thr Gly Glu Thr Cys Ile Arg Ala Gln Pro Glu Asn Ile Pro Ala Lys Asn Trp Tyr Arg Ser Ser Lys Asp Lys Lys His Val Trp Leu Gly Glu Thr Ile Asr. Ala Gly Ser Gln Phe Glu Tyr Asn Val Glu Gly Val Thr Ser Lys Glu Met Ala Thr Gln Leu Ala Phe Met Arg Leu 135 Leu Ala Asn Tyr Ala Ser Glr Asn Ile Thr Tyr His Cys Lys Asn Ser Ile Ala Tyr Met Asp Glu Glu Thr Gly Asn Leu Lys Lys Ala Val Ile Leu Gln Gly Ser Asn Asp Val Glu Leu Val Ala Glu Gly Asn Ser Arg Phe Thr Tyr Thr Val Leu Val Amp Gly Cys Ser Lys Lys Thr Ash Glu 200 Trp Gly Lys Thr Ile Ile Glu Tyr Lys Thr Asn Lys Pro Ser Arg Leu 215 Pro Phe Leu Asp Ile Ala Pro Leu Asp Ile Gly Gly Ala Asp His Glu 230 Phe Phe Val Asp Ile Gly Pro Val Cys Phe Lys

<210> 18

<211 > 248

<212 → PRT

<213 · Homo sapiens

tional

<400 > 18

Tyr Tyr Gly Asp Glu Pro Met Asp Phe Lys Ile Asn Thr Asp Glu Ile

1 10 15

Met Thr Ser Leu Lys Ser Val Asn Gly Gln Ile Glu Ser Leu Ile Sér 20 25 30

Pro Asp Gly Ser Arg Lys Asn Pro Ala Arg Asn Cys Arg Asp Leu Lys 35 40 45

Phe Cys His Pro Glu Leu Lys Ser Gly Glu Tyr Trp Val Asp Pro Asn 50 55

Gln Gly Cys Lys Leu Asp Ala Ile Lys Val Phe Cys Asr Met Glu Thr 65 70 75 80

Gly Glu Thr Cys Ile Ser Ala Asn Pro Leu Asn Val Pro Arg Lys His 85 90 95

Trp Trp Thr Asp Ser Ser Ala Glu Lys Lys His Val Trp Phe Gly Glu 100 105 110

Ser Met Asp Gly Gly Phe Gln Phe Ser Tyr Gly Asn Pro Glu Leu Pro 115 120 125

Glu Asp Val Leu Asp Val Gln Leu Ala Phe Leu Arg Leu Leu Ser Ser 130 135 140

Arg Ala Ser Gln Asn Ile Thr Tyr His Cys Lys Asn Ser Ile Ala Tyr 145 150 155 160

Met Asp Gln Ala Ser Gly Asn Val Lys Lys Ala Leu Lys Leu Met Gly 165 170 175

Ser Asn Glu Gly Glu Phe Lys Ala Glu Gly Asn Ser Lys Phe Thr Tyr 180 185 190

Thr Val Leu Glu Asp Gly Cys Thr Lys His Thr Gly Glu Trp Ser Lys 195 200 205

Thr Val Phe Glu Tyr Arg Thr Arg Lys Ala Val Arg Leu Pro Ile Val 210 215 220

Asp Ile Ala Pro Tyr Asp Ile Gly Gly Pro Asp Gln Glu Phe Gly Val 225 230 235 240

Asp Val Gly Pro Val Cys Phe Leu 245

(i) Lineal